

ABSTRACT OF THE DISCLOSURE

A polygon drawing apparatus and method draws a polygon by performing intensity processing on a polygon to be drawn so as to smoothly draw each edge portion of the polygon, by performing intensity processing on a polygon to be drawn so as to smoothly draw each edge portion of the polygon. Line intersection data associated with an intersecting portion between each edge of the polygon to be drawn, and each scan line is derived, which includes a first pair of outside intersection and inside intersection that represent intersecting positions between each scan line and one edge located on an upstream side as viewed in a scanning direction, a second pair of outside intersection and inside intersection that represent intersection positions between each scan line and one edge located on a downstream side as viewed in the scanning direction, an increasing rate at which an intensity value increases from the outside intersection to the inside intersection of the first pair, and a decreasing rate at which the intensity value decreases from the inside intersection to the outside intersection of the second pair. The intensity value to be given to each portion of the polygon in the scanning direction with respect to each scan line is sequentially calculated based on the line intersection data obtained for each scan line.